

# Kinks That Simplify Auto Jobs

## Runway for Working Under Car—Foiling the Tire Thief

**M**ANY jobs on the front or rear running gear of an automobile are awkward because there is so little room to work. A pit solves the problem but is not practical for many owners.

A good solution is shown in Fig. 1. Short, strong runways are constructed from sections of two by four and two by six inch lumber. The angle of the approaching incline can be quite sharp. The runways must solidly support the weight of the car. Use heavy nails or No. 18 wood screws. If the incline is made steep it will be necessary to provide stops to keep the elevated platforms from sliding. Be sure to block the rear wheels when the front ones are elevated. Stored with their sides to the garage's rear wall, the runways will take little space.

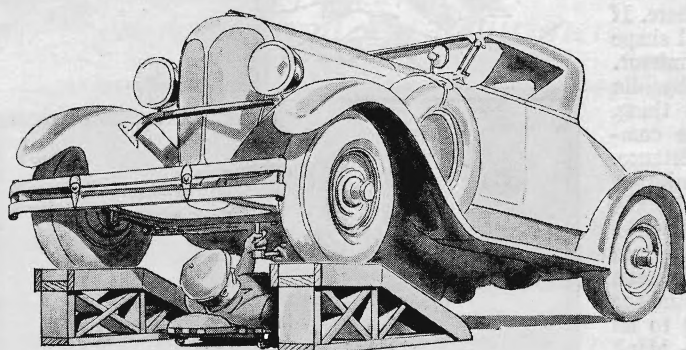


Fig. 1. By building a solid runway that will support your car it is possible to do work beneath it at your ease.

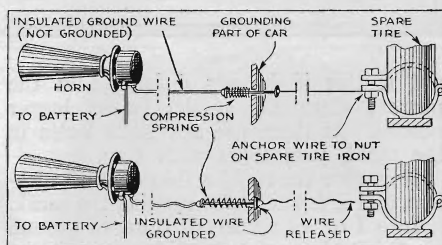


Fig. 3. This thief alarm can be adjusted to any car and will sound if spare is removed.

### ALARM PROTECTS SPARE

FIG. 3, above, shows an excellent way to protect the spare tire from theft. It operates electrically so that if anyone attempts to remove the tire the horn will start to blow and keep it up till shut off by the owner. The exact details of installations will, of course, depend on the type of car and the method of carrying the spare tire. When the string under the bolt head is released, the spring pulls the washer against the metal of the hole and completes the circuit.

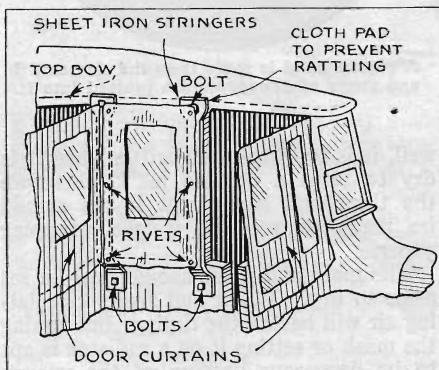


Fig. 2. Front edge of second curtain on car can be relieved of strain with metal strip.

### CURTAIN SUPPORTS

THE front edge of the second curtain on each side of the open touring car is subject to unusual strains. It stretches from the top to the front edge of the front seat without support and persons climbing in or out of the car bump into it and tear it away from the snap fasteners. A way to reinforce these curtains is shown in Fig. 2, above. A rib of heavy gage sheet metal is fastened to the body with a bolt through the hole that formerly held the snap fastener. The other end is bent around the bow of the top and a bolt used to clamp it. Then the snap fasteners for the front edge of the curtain are riveted to the metal strip. The final operation is to bend the sheet metal upright into a circular shape to give it additional strength.

This arrangement also prevents the curtains flapping in the wind and therefore helps to preserve the celluloid side lights. On old cars, supports also reinforce the top and prevent rattling.

### "BLIND" BUSHING

It is often extremely difficult to remove a bushing from a "blind" hole. A method often recommended is to run a tap into the bushing which will cut threads so that a bolt can be screwed in. Force can be applied to the projecting head of the bolt and so pull out the bushing. However, Fig. 4, below, shows a simpler and quicker way to do the job. First fill the bushing solidly with soft cup grease. Then take a bolt or a piece of cold rolled stock that makes a fair sliding fit in the hole. Start this in the hole on top of the grease and give it a sharp blow with a hammer. The sudden pressure on the hidden end of the bushing will start it out of the hole.

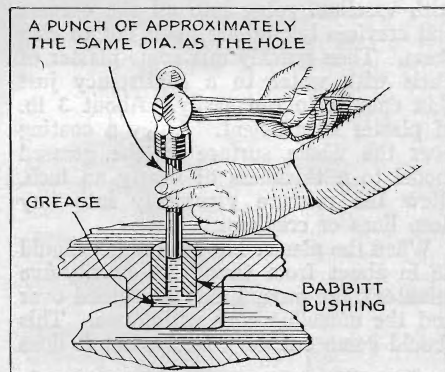


Fig. 4. By filling with grease and using bolt, bushing in blind hole can be removed.

### ELECTRIC DOOR SIGNAL

A DOOR not properly latched may swing open and cause a serious accident, especially if there are children in the car. And even when the rear seats are unoccupied, the swinging door may collide with a post or the side of the garage and be torn off or badly dented.

Fig. 5, at the left, shows a way to install a door indicator that will show at a glance whether all the doors are locked or not. The idea is to install in each door a switch such as is fitted to the house door in a burglar alarm system.

This switch can be set into the door so that it is operated by the latch as it sinks into the strike plate or by the door edge as it reaches the closed position. The most elaborate method is to install a separate jeweled light on the dash for each door, but it is also possible, by wiring the switches in series, to fix things so that only one light is necessary. In that case, opening any door will cause the light to glow. Use burglar alarm switches closing when the button is released or any simple switch of spring temper sheet brass.

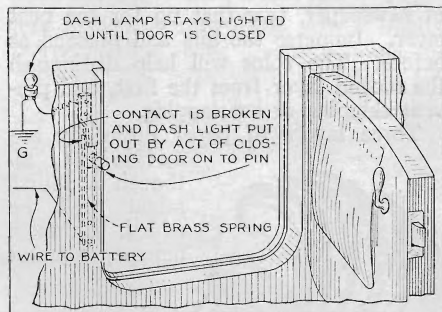


Fig. 5. A switch installed in your car will tell instantly whether all doors are locked.

**POPULAR SCIENCE MONTHLY** awards each month a prize of \$10, in addition to regular space rates, for the best idea sent in for motorists. This month's prize goes to Ralph M. Coombs, Canaseraga, N. Y. (Figure 3). Contributions are requested from all auto mechanics.